

## ABSTRACT

The present invention is directed to an organic optoelectronic device, such as an OLED device, provided with a vacuum deposited conformal composite coating for protecting the device from environmental elements such as moisture and oxygen. The present invention is also directed to a method for vacuum depositing a conformal composite coating directly onto an organic optoelectronic device, such as an OLED device, on a substrate. According to one embodiment, the invention provides a protected OLED device comprising a substrate; an active region positioned on said substrate; a first protective layer disposed over the active region; and a second protective layer disposed over the first protective layer, wherein said second protective layer comprises multiple sub-layers that further comprise an alternating series of two or more first polymeric sub-layers and two or more first high density sub-layers.